WHAT IS CLAIMED IS:

1. A method of configuring a multibeam satellite to enable remote monitoring of its transmissions, wherein the satellite transmits a signal in a first beam to a user terminal for receiving the signal, the method comprising configuring the satellite to transmit a copy of the signal in a second beam selected to contain a remote monitoring station for monitoring the copy.

2. The method of claim 1, wherein the copy is transmitted at substantially lower gain than the signal.

3. A method of configuring a multibeam satellite to enable remote monitoring of its transmissions, wherein the satellite transmits a signal in a first beam, the method comprising configuring the satellite to transmit a copy of the signal in a second beam at a substantially lower gain than the transmission of the signal.

4. The method of claim 3, wherein the signal and the copy are transmitted at substantially the same frequency.

5. The method of claims 1 to 3, wherein the signal is transmitted at a first frequency and the copy is transmitted at a second frequency different from the first frequency.

6. The method of claim 5, wherein the copy of the signal and the copy of the further signal are transmitted in a channel reserved for monitoring by the remote monitoring station.

7. The method of any one of claims 1 to 6, wherein a copy of the signal is transmitted in a plurality of different beams, including said second beam.

8. The method of claim 7, wherein the plurality of beams are selected so as each to contain a remote monitoring station for monitoring the copy.

9. The method of any preceding claim, wherein the satellite is periodically reconfigured so as to transmit a copy of a different said signal in said second beam.

10. The method of any preceding claim, wherein the satellite is a repeater satellite configurable to convert a feeder link signal, transmitted from a terrestrial gateway to the satellite, to said signal and said copy of the signal.

11. The method of any preceding claim, wherein the signal contains user data addressed to the user terminal.

12. The method of any preceding claim, wherein the step of configuring comprises transmitting. a configuration command directly or indirectly to the satellite.

13. The method of any preceding claim, further including transmitting directly or indirectly to the remote monitoring station channel allocation data identifying an allocation of one or more user channels within the signal such that the remote monitoring station monitors the one or more user channels.

14. A method of configuring a multibeam satellite to enable remote monitoring of its transmissions, wherein the satellite transmits a plurality of signals in a respective plurality of beams, the method comprising configuring the satellite to transmit a copy of a selected one of the plurality of signals in a beam for monitoring by a remote monitoring station, wherein the satellite is periodically reconfigured to select different ones of said plurality of signals for transmitting a copy thereof in said beam.

15. The method of claim 14, wherein the satellite is periodically reconfigured so that each of the plurality of signals is monitored sequentially.

16. A method of monitoring a transmission of a signal by a multibeam satellite in a first beam, the method comprising receiving a copy of the signal in a second beam of the satellite and monitoring the copy of the signal.

17. The method of claim 16, wherein the copy of the signal is received at a different frequency from that of the signal.

18. The method of claim 17, wherein the copy of the signal is received in a channel reserved for monitoring.

19. The method of claim 16, wherein the copy of the signal is received at the same frequency as that of the signal, and the second beam is non-adjacent to the first beam.

20. The method of any one of claims 16 to 19, wherein the gain of the copy is substantially lower than that of the signal.

21. The method of any one of claims 16 to 20 wherein the signal contains user data addressed to the user terminal.

22. The method of any one of claims 16 to 21, further including receiving channel allocation data identifying an allocation of one or more user channels within the signal, and monitoring the one or more user channels.

23. A method of monitoring a property of the earth's atmosphere, comprising configuring a multibeam satellite to transmit multiple copies of a predetermined signal in different beams thereof, receiving each of said copies at corresponding spatially diverse monitoring stations, and deriving said property from the received copies.

24. A computer program arranged to perform the method of any preceding claim.

25. A computer program product incorporating a computer program according to claim 24.

26. Apparatus arranged to perform the method of any one of claims 1 to 23.

27. A method substantially as herein described with reference to the accompanying drawings.